

LOST TO LUCRATIVE: A STUDY OF THE ATLANTA BELTLINE

A Thesis
Presented to
The Academic Faculty

by

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In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Building Construction

Georgia Institute of Technology
May, 2018

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LOST TO LUCRATIVE: A STUDY OF THE ATLANTA BELTLINE

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Date Approved: April 26, 2018

ACKNOWLEDGEMENTS

I would like to thank my thesis committee for helping and supporting me through this process. First, I'd like to thank Dr. Eunhwa Yang for being my adviser. She guided me with her expertise in the research field from solidifying a topic, background research, study design, to data collection and documentation. Second, I'd like to thank my committee members, Dr. Young-Mi Choi and Dr. Debbie Phillips. Their enthusiasm for empathetic design inside and outside the classroom has helped inspire me into the person I am today and helped inspire this research. This process has been a joy thanks to these women's patience, kindness, and expertise.

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SUMMARY

Today, the revitalization of lost, or space that is no longer used for its original purpose, has become more and more popular, but how does a designer know how to change that lost space into a place that people will want to visit? This study explores the revitalization of lost spaces into public trails by using the Atlanta BeltLine as a case study. Over 100 people in the Atlanta area participated in the survey. The survey asked general questions about their experiences of the Atlanta BeltLine as well as perceived safety questions. Additionally, respondents had the option to submit photos of things they like and dislike about the Atlanta BeltLine. For the purpose of this study, data was only gathered regarding the Atlanta BeltLine East completed trail and the Atlanta BeltLine East interim trail. These trails provided the similarity of location and available population as well as many differences regarding path type and width, activities accessible, and other environmental measures. Environmental measurements were taken to help interpret the results of the survey. These measurements included sunlight measures, path type, and path width.

The results of the study showed that most respondents had only visited the completed trail. This is due to a large number of factors, some to be perceived safety related. The study results showed that wide, permanent pathway material such as concrete, adequate lighting, opportunity for social outings (activities such as parks, retail space, or restaurants), and interest pieces such as art installations or scenic views all play a part in providing the perceived safety needed for a person to revisit a space that was previously lost or abandoned.

CHAPTER 1. INTRODUCTION

Historically only for the upper class and elite, public spaces now strive to be a leveling field for all social classes. Open spaces, or large, outdoor spaces for people to gather, have become staples to thriving urban environments. Starting early as the early 20th century, recreational opportunities as well as health and hygiene became motives for ‘open space’ (Banerjee, 2001). In 1933 the International Congress of Modern Architecture endorsed open spaces as essentials to the modern city. With the rise of popularity, public space became more organized, with the focus more on sports and activities rather than “civic design” (Banerjee, 2001). This became a problem because it is more expensive to support these types of spaces. Therefore, open urban spaces fell out of favor from the mid to late 20th century because of budget cuts. However, in more recent decades, public spaces are being recognized as a necessity for the public good in largely populated areas (Banerjee, 2001).

People today not only want spaces to function for running errands and work, but they also want a place to go when they are in between work and home. The concept of public life is from a person’s desire to exist in the space and to simply have a good time (Banerjee, 2001). People are now focusing more on what kinds of experiences they have in a place to determine if they want to continue going to that place, bringing rise to the “experience economy” in consumer culture. (Pine & Gilmore, 1999). By staging experiences, businesses are able to differentiate themselves from others. Creating exceptional experiences for the consumer, these businesses differentiate themselves and therefore are

able to charge a premium (Pine & Gilmore, 1998). This concept not only applies to businesses. City planners have brought it into the public sector for everyone to enjoy. This new trend has influenced how popular urban places have become. Banerjee mentions that a mix of “flânerie” (the activity of strolling and looking around) and third places must be achieved in order to have a successful public life (2001).

1.1 Public space and its uses

Although most would agree that public spaces are good for the health of a city and its citizens, Banerjee brings to light that with the rise of television and the Internet, chosen leisure activities have become more privatized (2001). One common argument for today is that the internet seems to take the place of social interaction or hinder the quality of social interaction. Studies have shown that excessive use of the internet through the many technology channels tend to lead towards poor social interactions and connectedness (McIntyre, 2015). In many cases, people can work, shop, and socialize all through the internet, so it might be reasonable to think that in the near future, maybe even today, face to face interaction is not needed. Banerjee disagrees. He believes that although we will keep using technology in different mediums, we will not lose the need for social contact or the need to be outdoors. He says that we will likely see an increase in the need for public spaces, especially in urban areas to accommodate the growing population of children and seniors (2001). Therefore, urban spaces, known for technology use, are perfect case studies to understand what captivates the average visitor.

In Brownson and team's study of physical activity in public spaces, fifteen different instruments were used. These surveys captured not only physical activity but also other factors such as land use, safety, and gender differences. Brownson also notes that The NEWS (Neighborhood Environment Walkability Scale) was most often used in the study (2009). Additionally, Brownson and team also used audit strategies to measure the physical environment of the public spaces. Although special tools can be used for many audit instruments are simply specific observations by the researcher. Some of the audit instruments included: the SPACES Instrument, Sidewalk Assessment Tool, Pedestrian Environment Data Scan (PEDS) Tool, Measures of Environmental Characteristics, and Path Environment Audit Tool (PEAT) (Brownson, 2009).

Leisurely walking has increasingly become a more popular form of physical activity, specifically for older adults. According to Li in 2005, walking is the most prevalent leisurely physical activity. In 1998, the Behavioral Risk Factor Surveillance System (BRFSS) revealed that out of all leisure time physical activities, walking was the most prevalent (Li, 2005). Although walking can be done in almost any environment, it is most commonly done in outdoor, social environments (Li, 2005). Therefore, one could assume that by providing more public paths and other types of public space, physical activity would become more popular among leisure activities in the area.

1.2 Perceived safety

Universally agreed as one of the most important factors in any environment, safety is a difficult goal to achieve. Located as one of the lowest needs on Maslow's hierarchy of

needs, if a place does not feel safe, people will not visit it. But how does one ensure a feeling of safety to a population? As mentioned in Heek's *Safety and Privacy Perceptions in Public Spaces: An Empirical Study on User Requirements for City Mobility*, if surveillance, such as police presents or cameras, is used as a safety precaution, there must be a balance between keeping patrons safe and protecting their privacy (2015). Because these two ideas are contradictory, there must be trade-offs. In Heek's survey, it was found that people are specific about what surveillance types they prefer. People are more likely to accept and appreciate surveillance technology they can see, such as well displayed cameras. Overall, well-lit areas to for better view of the surroundings seemed to be the most wanted safe-guard; cameras, to be in society with others, police presence, and only staying on a place during the day followed closely behind as preferred safety measures (2015). The study also found that the amount of surveillance desired depended on the location. Participants desired less surveillance in private areas and more surveillance in public areas (Heek, 2015). Therefore, people are more likely to want public spaces to be better lit and have more people around than their own backyards.

Although technological surveillance measures are an important part of making the public feel safe in public spaces, environmental factors play a huge role in perceived safety. In a study done by Anke Blöbaum and Marcel Hunecke, it was found that well-lit areas and the opportunity to escape the place was the primary factors in determining a person's perceived safety. In other words, being able to see one's surroundings well and being able to run away in the case of danger is very important for a person to feel safe. It was also found that women found the opportunity to escape a place was more important than men

did because women were more likely to see escape as their best defense against an attacker (2005). Heek's survey found that most people felt safer during the day time, especially in semi-private locations such as the individual's own street, and only slightly less safe in public spaces during the day. Potential threat was seen as higher across all locations at night, as street lamps do not provide the same amount of light that daytime provides. The survey also found that although men prefer more privacy, women prefer more security (Heek, 2015).

Some lack in the use of public space comes from the perceived safety in those places. Banerjee coins the phrase "the broken window syndrome" when talking about the lowered feeling of safety where there is weak social control. This is common in areas where there is increased occurrences of panhandlers and homelessness as well as trash, graffiti, and vandalism (Banerjee, 2001). Because of these fears, there is a rise in privatized open spaces. Privatized open spaces are spaces that seem to be open to the public but are owned and managed by private entities. Shopping malls and plazas are popular spaces that appear to be public, but are privatized (Banerjee, 2001). These privatized spaces become the hub of social interaction, while publicly owned spaces become neglected, run-down and "lost."

1.3 "Lost" spaces

Public spaces have become more and more important to the lifestyle of the people who live, work, and play in urban areas. Traditionally, town squares and public parks have been gathering places, but with the population increases, parks have turned into parking lots, and squares have fallen out of favor. A trend that has come into play is the

revitalization of the “lost space.” A “lost space” is a space that was once used but is no longer needed for the original intended use. One can identify these spaces by their neglected and overgrown appearance. These spaces have no use and do not often experience visitors. Typically abandoned and run down industrial areas, lost spaces are being transformed from unfavorable to areas to highlight the history and future opportunity.

A growing trend in urban public spaces is to take a space that is no longer used and repurposing it into spaces for the public to enjoy. Each example is unique, some places are made into retail space, but a growing number of these spaces incorporate nature and give a park-like feel, especially in urban locations where greenspace is more difficult to come by. In Lorimer’s *Living roofs and brownfield wildlife: towards a fluid biogeography of UK nature conservation*, much of the motivation to repurpose these unused spaces is to create a safe haven, or “unofficial countryside” for wildlife within the urban environment (2008). These spaces not only encourage a thriving population of wildlife in urban areas, but it also provides urban dwellers the opportunity to experience nature in a setting where they would not be able to otherwise. Often, brownfields and other lost spaces are in disadvantaged areas where the population often does not get exposure to the countryside or nature outside the city. When these brownfields have been restored, the sites can be used as educational resources for the community (Lorimer, 2008). Thus, giving lost spaces more importance in the community.

How can a planner, architect, or designer predict what will be done in these revitalized lost spaces? The answer can be hypothesized, but never fully answered. De Girolamo points out in *Time and Regeneration: Temporary Reuse in Lost Spaces*, that the

use of these public spaces is spontaneous: one could relax, stroll, buy, sell, or even protest in these spaces (2013). A person's physical activity in these spaces, however, can be relatively easier to predict when considering environmental factors such as access to recreation facilities. Transportation opportunities, or walkability and infrastructure (such as sidewalks and bike lanes) also have to do with if the person will bike or walk to destinations (Brownson, 2009). By providing this walkability and infrastructure, a trail designer might be able to encourage these kinds of physical activities. Walking surfaces, lighting, landscape, art, and other elements are all characteristics of public spaces that designers can control to persuade people to use these spaces for specific purposes.

1.4 Color

When evaluating a design of anything, many people think of color. Colors are a way of identifying and describing something, but they have a much deeper impact that one might see on the surface. Colors can bring a person emotion in even the subtlest ways. One industry that has studied the way humans react to color in detail is the marketing industry. By using color strategically, an effective food ad in a magazine can cause a person to feel hungry with the proper use of color. In the article, *The Impact of Pleasure-Evoking Colors on the Effectiveness of Threat (Fear) Appeals*, Wauters looks at how colors can impact the way a person reacts from a place of fear. This study found that certain background colors in threat appealing ads were more effective than others (2014).

If marketers can use color in the print and virtual space, can people's emotions be impacted by the use of color in a space? Color Psychology, as it's called, is used in interior

design to evoke feelings, and even, as in Li's *Medical space-oriented color psychology perception model*, therapeutic benefits of medical patients (2014). Color is a strong force that can impact the way humans think and in turn, act without being completely aware that colors are making them feel in such a way.

1.5 The Atlanta BeltLine

Beginning as a graduate student's vision, the Atlanta BeltLine is a redevelopment and transportation plan to connect Atlanta's urban areas. Although not yet fully implemented, the BeltLine converts the Atlanta and Westpoint Railroad to walking and bike paths as well as develop surrounding greenspace. A lost space, transformed. As one of America's most ambitious projects regarding urban transportation and redevelopment, the Atlanta BeltLine is backed by community leaders, individuals, neighborhoods, and businesses. When the project is finished, it will provide Atlanta with 200 acres of new and renewed greenspaces and parks and 70 acres of renewed brownfields.

In addition to providing the city with more bike-able and walkable paths, the Atlanta BeltLine will incorporate the Atlanta Streetcar system, further providing more interconnectivity within the city. This aligns with one of the main goals of the Atlanta BeltLine: to provide more mobility and economic opportunity to the people of Atlanta (Tunnell-Spangler-Walsh & Associates, 2010). Some similar projects to the Atlanta BeltLine include The High Line (New York, NY), Los Angeles River Revitalization (Los Angeles, CA), and The Midtown Greenway (Minneapolis, MN). Each of these projects have taken spaces that were once lost and gave them new life as community trails. Now,

each of these, along with the Atlanta BeltLine, are defining landmarks and destinations that represent their cities. Keller claims that walking is the best activity for a person's health. In his book, he suggests that one of the strategies a community can use is "design communities that support safe and easy places for people to walk" (2016). These places that are encouraging outdoor activity are a piece of the puzzle to promote good community health in addition to adding community involvement.

According to the subarea one master plan (and included in all of the subarea plans) of the Atlanta Beltline, safety is one of the top priorities. "The design of open spaces and development should properly address streets, provide active frontage, and allow for residential density and informal supervision in order to increase public safety." The Atlanta BeltLine strives to provide a public space that the community can enjoy (Tunnell-Spangler-Walsh & Associates, 2010).

CHAPTER 2. STUDY DESIGN

2.1 Research question

Today, residents of Atlanta and visitors alike visit the Atlanta Beltline every day to socialize, commute, enjoy the outdoors, and exercise. But why do people visit revitalized “lost spaces” like the Atlanta BeltLine? This is the paramount question to guide this research. The following methods will discover underlying reasons people choose to visit trails like the Atlanta BeltLine. This research sets out to discover the design factors, both naturally occurring and man-made, that encourage people not only to revisit, but have enough perceived safety to revisit the BeltLine.

2.2 Methods

To understand fully which design and environmental factors impact the number of visits to the Atlanta BeltLine, both quantitative and qualitative data were gathered. For data collection, environmental measures were taken from different locations among the trail. This includes light measurements, daylight trends, path material, and path width. Additionally, a survey was given to people in the Atlanta area to provide information on preferences and habits regarding the Atlanta BeltLine. Together, this data will provide both quantitative and qualitative data to determine what factors help and/or harm the popularity of the Atlanta BeltLine.

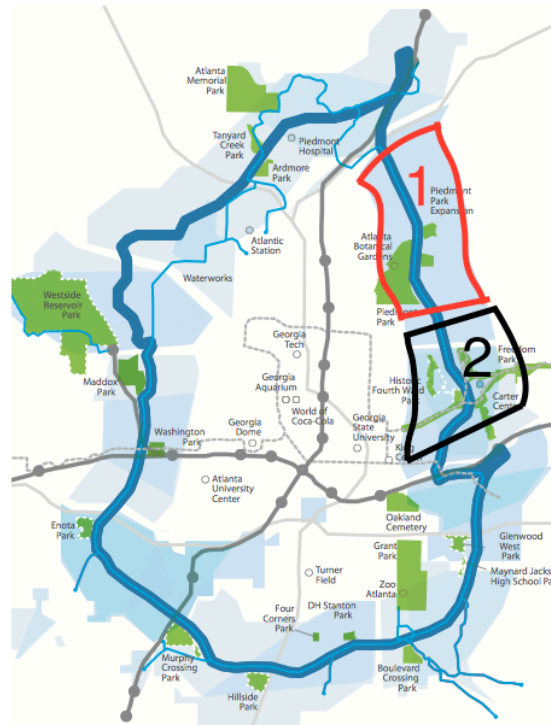


Figure 1 – Map of Atlanta Beltline

Because the study timeline is before the trail is completed, two sections were chosen to reflect the Atlanta BeltLine project as a whole. Data was taken from both the east completed and the east interim trails. Figure 1 shows a map of the Atlanta Beltline with area 1 highlighted as the interim trial and area 2 as the completed trail. These two trials were chosen for their similarities and their differences. Both trails are overseen and managed by ABI, or Atlanta BeltLine, Inc. This is important when it comes to cleanliness, walkability, and consistency to experience. Both short trails used in the study are taken from one continuous path: the Eastside Trail (2 miles in length) and the Eastside Interim Hiking Trail (1.4 miles in length). The trails' proximity to one another implies a person who visits one also has the opportunity to visit the other and is not limited due to

transportation or other barriers. Lastly, both trails incorporate local art along the trail. The primary differences, however, are: the east trail is listed as completed and is equipped with paved walkways while the interim trail's walking surface is gravel; and the completed trail has shops and restaurants for the users to stop by along the way while the interim trail does not. These similarities and differences will be taken into consideration when interpreting the data.

From mid-April to mid-September of 2017, data was collected. Environmental data was collected in April of 2017 and at the close of the survey in September of 2017. The first survey response was collected on June 13, 2017, and the survey remained open until the goal number of responses was collected on September 21, 2017.

2.2.0 Environmental Data

For each trail, luminosity was recorded via lux meter at every .10 mile during the brightest part of the day or when the sun is at its highest point. The reason this timeframe was chosen was to see if under the best circumstances (i.e. the most light possible) one trail proved to still be brighter than the other. Average times for sunrises and sunsets were calculated during the timeframe of 3 months prior to the first survey response and the day of the last response. This time frame was from mid-April to mid-September of 2017. These measurements will determine the presence of natural light during the time frames respondents self-report visiting the Atlanta BeltLine. Additionally, walking path widths were recorded as well as walking surface information.

2.2.1 Survey Data

Although quantitative data provides valuable information regarding tangible evidence of when and why visitors return to the BeltLine, qualitative gives a large amount of insight to what may not appear in numbers. To contribute to both qualitative and quantitative measures, a survey was given to both visitors of the Atlanta BeltLine and as well as non-visitors. Skip logic prevented non-visitors from answering questions about visits to the Atlanta BeltLine specifically. Respondents were self-selected by choosing to participate. Word of the survey was given out via flyer, social media, and word of mouth. In the survey, specific questions were given about habits of visiting the BeltLine as well as general, public trail safety questions. Non-visitors were included in the sample as to understand and allow conclusions about public trails in general, not just the Atlanta BeltLine. Additionally, non-visitors might provide insight on why they have chosen not to visit the Atlanta BeltLine. The survey data was gathered from an online platform called Qualtrics, and was distributed via web link and QR code on a flyer as well as on social media. Additionally, respondents were responded to by email after initially showing interest in the project. To reach both qualitative and quantitative significance, the goal number of responses for the survey was 100.

To distribute the survey, an IRB, or Institutional Review Board, approval was required. The study justifications and method were submitted to the board. The requirements set for the study included:

- Respondents must be 18 years old or older
- Respondents must be able to consent for themselves
- All identifiable information will be removed from the data

Before a respondent can complete the survey, they must read through and consent to the terms of the study. The terms included the contact information of the researchers, the purpose of the research, the acknowledgment that the study required minimal risk, and that the research is voluntary and may be stopped at any time.

In regards to the design of the study, when respondents needed to recall or predict their activities, a 3-month timeframe was specified. This time frame was selected because it was a reasonable amount of time for a respondent to recall activities and because it is a timeframe commonly used in surveys asking participants to recall. As stated in the first page of the survey, “there are no risks to you, and you may skip any question or stop the survey at any time,” participants could skip any question he or she did not feel comfortable skipping due to privacy or lack of remembering. By giving respondents the option to skip, they will be less likely to guess an answer if they don’t understand the question or don’t recall the requested information.

The survey covered a variety of preferences regarding the BeltLine, activities done on the BeltLine, when typical visits to the BeltLine occur, general perceived safety, and demographic questions.

To gather deep preference data, respondents had the option to submit photos of scenes they like and scenes they dislike about the Atlanta BeltLine. When submitting the photos, the respondents were asked to explain the like or dislike displayed in the photo. To discover if color has an underlying correlation to a reoccurring like or dislike, photos were analyzed by percentages of color and recorded with the survey data. As discovered in the background

research, color can impact people's feelings and emotions. Color analysis may show that there's a connection between why participants choose to revisit and the colors present in the things they are drawn to or away from.

In addition to gathering likes/dislikes about the trail, respondents were asked to provide information on when and why they visit the Atlanta BeltLine. The following questions were asked of the respondents regarding their activities accompanied with provided multiple choice answer options:

- Do you have pictures of the Atlanta Beltline to share?
- Please upload a picture that represents something you like about the Atlanta BeltLine.
- What do you like about this picture?
- Please upload a picture that represents something you dislike about the Atlanta BeltLine.
- What do you dislike about this picture?
- How often did you visit the Atlanta BeltLine in the last 3 months?
- Why have you visited the Atlanta BeltLine in the last 3 months?
- What time(s) of day have you visited the Atlanta BeltLine in the last 3 months?
- What days of the week do you typically visit the Atlanta BeltLine?
- Using the map above, what areas of the Atlanta BeltLine have you visited?

After gathering information on the respondents BeltLine habits, the respondents were shown two photos, one from the completed trail, and one from the interim trail. Both photos

showed similar lighting from the sun and showed where the trail passes under a bridge. Both bridges contain an open space on one side and an enclosed space on the other. Additionally, both of these spaces feature art underneath the bridge and neither photos show people. Though the completed trail's bridge causes the photo to appear darker, the photos were taken within an hour of the same day. The completed photo shows an apartment building in the background while the interim photo shows woods. The interim photo can be viewed in **Error! Reference source not found.** and the completed trail photo can be viewed in **Error! Reference source not found.**



Figure 2 - Interim Trail Bridge



Figure 3 - East Completed Trail Bridge

To discover if there is a difference in perceived safety from the photos, the survey uses the perceived danger items that Blöbaum and Hunecke used in their study *Perceived Danger in Urban Public Space* (2005). Respondents were asked to rate each statement on a 7-point Likert scale from Strongly Agree to Strongly Disagree:

- I would walk along this place unaccompanied.
- I have an uneasy feeling about this place.
- From this place, you have a good overview.

- This place is well lit.
- In the case of danger, you can easily escape from this place.

Lastly, the respondents were asked the following demographic information. These questions will help draw correlations between insights and affected populations as well as document the diversity of respondents involved in the study.

- What year were you born?
- What is your gender?
- What is your race?
- Do you plan on visiting the Atlanta BeltLine in the next 3 months?

CHAPTER 3. RESULTS

The results collected fell in two categories: environmental and survey. These were compared to each other to determine what about the Atlanta BeltLine makes it so popular among Atlanta residents and visitors of Atlanta. Environmental observations took into account the differences of the interim trail from the completed trail. These differences determined that the path material for the completed trail consists of all concrete where the interim trail consists of a combination of dirt and gravel. The light differences of the two trails showed that the completed trail was brighter on average. The last environmental measurement showed that the completed trail is wider than the interim's.

As for the survey results, there were three main parts: photos with comments, the participant's usual activity on the BeltLine, and the perceived safety between similar photos of the two trails. The photos between likes and dislikes of the participants did not result in any large insights because the photos were similar in content. However, the comments revealed valuable insights. Participants like things such as the wide paths, local art, the sense of community the BeltLine brings to Atlanta, and that the BeltLine has encouraged taking lost spaces and making them new. As for the dislikes, the participants pointed out problems such as gentrification, unwanted graffiti, the constant construction, and the crowds of people on the path at the same time.

For the usual activity, the survey recorded that most people visit the completed trail and visit once every few weeks. Over 60% of participants have visited the completed trail and 30% have visited the interim trail. Additionally, the survey reported that visiting with

friends and participating in exercise were the two most common reasons for visiting the Atlanta BeltLine. As for perceived safety, the participants showed that men feel safer in public spaces than women do on general. Additionally, participants judged the completed trail photo as a safer location than the interim trail location. The following sections spell out the results in more detail.

3.1 Environmental results

For the environmental data collection, light measurements were taken every 0.10 mile of each trail measured with a Garmin GPS watch starting from the Monroe Drive entrance of the trails to the end of the sections. These light measurements were taken with a lux meter from 12:20pm to 2:20pm EST on April 11, 2017, a time frame when the sun is at a high point during the day. The weather was mostly sunny with some clouds passing occasionally. Table 1 below shows the lux measurements for the completed and interim trails of the east side of the BeltLine. By averaging the measurements taken every .1 mile, the interim trail provides less sunlight than the completed trail due to more shaded areas.

Table 1 – Average Lux Measurements

East Completed Trail			East Interim Trail		
Time	Mile	Lux (lumens/m2)	Time	Mile	Lux (lumens/m2)
12:20	0.1	847	1:48	0.1	169
12:24	0.2	915	1:51	0.2	944
12:27	0.3	841	1:53	0.3	217
12:30	0.4	830	1:56	0.4	888
12:33	0.5	845	1:59	0.5	226
12:36	0.6	892	2:01	0.6	178
12:38	0.7	867	2:04	0.7	152
12:41	0.8	910	2:06	0.8	1407

12:44	0.9	948	2:09	0.9	638
12:47	1	770	2:12	1	194
12:50	1.1	851	2:14	1.1	728
12:53	1.2	220	2:17	1.2	134
12:56	1.3	174	2:10	1.3	680
12:58	1.4	239			
1:10	1.5	910			
1:03	1.6	330			
1:06	1.7	350			
1:08	1.8	186			
1:10	1.9	162			
Average		636.16	Average		504.23

The sunrise and sunset results were gathered using Atlanta, Georgia measurements recorded on the website, sunrise-sunset.org from mid-April to mid-September. April 15, 2017, twilight began at 6:39am and as the days got longer, the start of twilight began earlier. For the same day, the end of twilight was recorded at 8:34pm with the end of the daylight becoming later as the season progressed into summer. In by mid-September, the days began getting shorter with the start of twilight on September 15, 2017 at 6:56am and the end of twilight at 8:08pm. The survey included a pre-twilight timeframe (6:00pm – 8:00pm) to gauge if users were willing to use the Atlanta BeltLine in the darkness. However, due to oversight of longer hours of daylight during the summer, a post-twilight timeframe was not included in the survey.

As for the widths of the trails, the trail ranged from 10-14 feet of concrete trails. The interim trail, unlike the completed, has a less-defined width because the trail is a mix

of gravel and dirt. The interim trail is approximately 8 feet. Figure 4 shows pictures of the interim trail and Figure 5 shows pictures of the completed trails.



Figure 4 - Interim Trail Photos



Figure 5 - Completed Trail Photos

3.2 Survey results

In total, 142 people participated in the survey. Eighty-one participants completed the survey in full and 36 participants completed most of the survey. Twenty-five participants did not complete enough of the survey to provide usable data (only completing the consent

portion of the survey). Overall, the goal number of responses was exceeded because 117 responses were valid. For the purposes of data analysis, 117 was used as the number of responses and the 25 unusable responses were discarded. Overall, most respondents found out about the survey over social media as 3.91% stated that they received a flyer while visiting the Atlanta BeltLine, 73.44% stated that they found out about the survey through social media, and 22.66% selected “other” and stated that they found out about the survey through another form, such as word of mouth or reddit.com a specific web platform that is assumed some do not consider to be “social media”. The following tables outline the demographics.

Table 2 – Survey Result Demographics

Gender	Percentage of Respondents Answer	Number of Responses
Female	49.48%	48
Male	50.52%	49
Race	Percentage of Respondents Answer	Number of Responses
American Indian or Alaska Native	1.00%	1
Asian	3.00%	3

Black or African American	1.00%	1
Native Hawaiian or Pacific Islander	0.00%	0
White	92.00%	92
Other	3.00%	3
Age	Percentage of Responses Answer	Number of Responses
18 - 24	34.07%	31
25 – 39	50.55%	46
40 - 59	13.19%	12
60+	2.20%	2

3.2.0 Visiting habit question results

To understand the visiting habits of the respondents, the survey asked how often they have visited the Atlanta BeltLine in the last 3 months. The most popular answer was “Once every few weeks” at 33.05%, but there were responses across the spectrum of options, including “I did not visit the Atlanta BeltLine” at 12.71%. Table 2 gives an indication of the diversity of BeltLine users that was captured. It was also captured that 60.93% of

respondents reported visiting the completed trail while 34.44% reported ever visiting the interim trail.

The survey allowed the respondents to select multiple reasons for visiting the Atlanta BeltLine. “Visiting with friends” was the most popular answer at 31.60% with “Exercise” as a close second at 29.72%. The other options, “Commuting/ Running Errands” and “Sightseeing” followed with 19.81% and 18.87% respectively.

In addition to understanding why and how often respondents visit the Atlanta BeltLine, the survey captured when the respondents typically visited. Two questions were asked to understand what times during the week the BeltLine visits were generally highest: “What time(s) have you visited the Atlanta BeltLine in the past 3 months?” and “What days of the week do you typically visit the Atlanta BeltLine?” The responses reflected that respondents typically visit the beltline Friday – Sunday after 2:00pm. Figure 7 shows the respondent counts of time and day that the Atlanta BeltLine are typically visited.

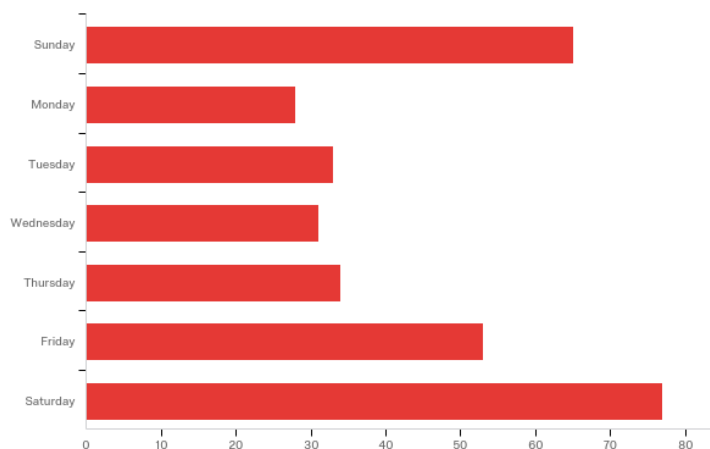


Figure 6 – Days respondents typically visit the Atlanta BeltLine

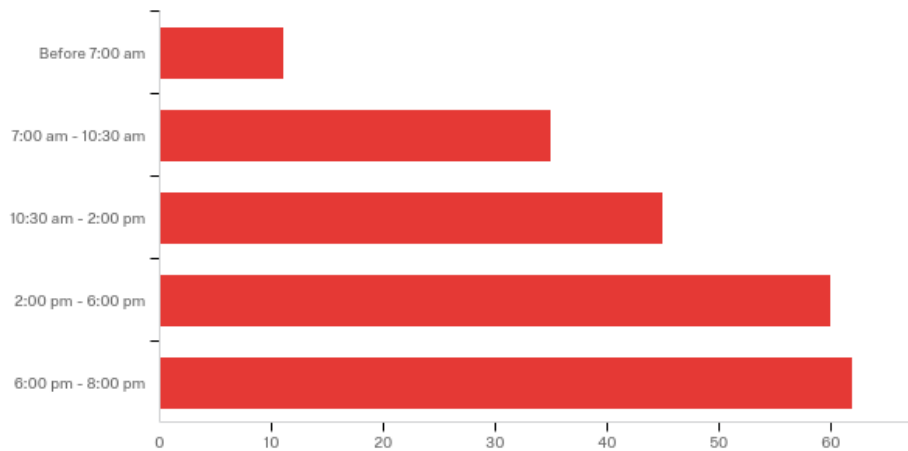


Figure 7 – Times respondents typically visit the Atlanta BeltLine

3.2.1 *Safety question results*

As mentioned previously, Blöbaum and Hunecke’s perceived questions were used to gauge perceived safety of similar types of locations on the interim and completed. Each series of questions were asked about Figure 1, the interim trail’s photo, and Figure 2, the completed trail’s photo. Tables 3 and 4 show the number of responses for each of the photos. When determining significance, a simple 2 tailed t test was used. Significance was determined if the p-value came out smaller than 0.05. When comparing the p-values, 3 out of the 4 safety questions proved significant that participants felt safer on the completed trial. The only question that did not prove significant was “this place is well lit.” This is likely because both photos appeared dim because they were taken under overpasses. The p-values are found in Table 5.

Table 3– Interim Trail Safety Survey Question: Overall Counts

		I would walk along this place unaccompanied. (+)	I have an uneasy feeling about this place. (-)	From this place, you have a good overview. (+)	This place is well lit. (+)	In the case of danger, one can escape easily from this place. (+)
1	Strongly Agree	17	3	3	3	6
2	Agree	31	14	16	9	13
3	Somewhat Agree	32	32	11	8	16
4	Neither Agree nor Disagree	3	15	29	24	18
5	Somewhat Disagree	13	12	11	13	25
6	Disagree	4	20	20	33	16
7	Strongly Disagree	6	10	9	13	8
	Mean	3.00	4.12	4.26	4.81	4.21

Table 4 – Completed Trail safety survey question: overall counts

	I would walk along this place unaccompanied. (+)	I have an uneasy feeling about this place. (-)	From this place, you have a good overview. (+)	This place is well lit. (+)	In the case of danger, one can escape easily from this place. (+)
1 Strongly Agree	33	5	4	1	9
2 Agree	34	4	39	11	27
3 Somewhat Agree	18	17	14	11	22
4 Neither Agree nor Disagree	2	13	19	16	12
5 Somewhat Disagree	2	16	10	22	14
6 Disagree	4	23	5	25	8
7 Strongly Disagree	4	19	2	10	2
Mean	2.32	4.81	3.61	4.69	3.29

Table 5 –Interim Trail Vs. Completed Trail

		Interim Trail (n=97)	Completed Trail (n=97)	df	t	p
I would walk along this place unaccompanied. (+)	M	3.00	2.32	96	4.88	0.00264153
	SD	1.65	1.55			
I have an uneasy feeling about this place. (-)	M	4.12	4.81	96	2.81	0.00548963
	SD	1.68	1.75			
From this place, you have a good overview. (+)	M	4.26	3.61	96	4.94	1.7843E-06
	SD	1.67	1.43			
This place is well lit. (+)	M	4.81	4.69	96	0.53	0.5964478
	SD	1.65	1.56			
In the case of danger, one can escape easily from this place. (+)	M	4.21	3.29	96	4.12	5.7492E-05
	SD	1.66	1.56			

Because of the predetermination that men and women have different levels of perceived safety, Tables 6 and 7 break out the total number of male and female responses for each question. With the male to female responses being nearly 50/50, comparing these responses will allow insight on the differences between the male vs. female perceived safety on public trails. When looking at the significance between males and females, both groups found the completed trail to feel safer than the interim trail to some degree. The significance calculations are found in Table 8.

Table 6 – Interim Trail safety survey question: overall counts male vs. female

	I would walk along this place unaccompanied. (+)		I have an uneasy feeling about this place. (-)		From this place, you have a good overview. (+)		This place is well lit. (+)		In the case of danger, one can escape easily from this place. (+)	
	F	M	F	M	F	M	F	M	F	M
Strongly Agree	4	12	1	2	1	2	0	3	2	3
Agree	8	19	6	6	9	6	7	2	3	9
Somewhat Agree	19	10	19	11	5	4	5	2	6	8
Neither Agree nor Disagree	2	1	11	3	10	17	11	10	9	8
Somewhat Disagree	9	4	4	6	6	4	2	9	16	7

Disagree	3	1	5	14	10	9	18	14	6	9
Strongly Disagree	3	2	2	7	6	3	5	7	3	5

Table 7 – Completed Trail safety survey question: overall counts male vs. female

	I would walk along this place unaccompanied. (+)		I have an uneasy feeling about this place. (-)		From this place, you have a good overview. (+)		This place is well lit. (+)		In the case of danger, one can escape easily from this place. (+)	
	F	M	F	M	F	M	F	M	F	M
Strongly Agree	10	23	3	2	2	2	1	0	3	6
Agree	17	17	3	1	21	18	7	4	10	17
Somewhat Agree	10	8	8	9	6	8	3	8	13	9
Neither Agree nor Disagree	2	0	9	4	9	10	6	10	8	4
Somewhat Disagree	2	0	7	9	6	4	12	10	6	8
Disagree	4	0	12	11	3	2	12	13	3	5
Strongly Disagree	3	1	6	13	1	1	6	4	2	0

Table 8 –Male Vs. Female

Interim Trail

		Male	Female	df	t	p
		(n=49)	(n=48)			
I would walk along this place unaccompanied. (+)	M	2.53	3.52	95	3.08	0.0027
	SD	1.54	1.62			
I have an uneasy feeling about this place. (-)	M	4.53	3.71	95	-2.48	0.015
	SD	1.85	1.38			
From this place, you have a good overview. (+)	M	4.20	4.38	95	0.52	0.602
	SD	1.59	1.76			
This place is well lit. (+)	M	4.91	4.71	95	-0.61	0.544
	SD	1.65	1.64			
In the case of danger, one can escape easily from this place. (+)	M	4.10	4.42	95	0.94	0.348
	SD	1.82	1.47			
Completed Trail						
		Male	Female	df	t	p
		(n=49)	(n=48)			

I would walk along this place unaccompanied. (+)	M	1.796	2.854	95	3.54	0.00068867
	SD	1.060	1.786			
I have an uneasy feeling about this place. (-)	M	5.082	4.542	95	-1.53	0.128490777
	SD	1.730	1.738			
From this place, you have a good overview. (+)	M	3.133	3.188	95	0.18	0.856186291
	SD	1.392	1.483			
This place is well lit. (+)	M	4.653	4.723	95	0.22	0.826867992
	SD	1.451	1.677			
In the case of danger, one can escape easily from this place. (+)	M	3.122	3.467	95	1.07	0.287863423
	SD	1.589	1.531			

3.2.2 Photo analysis results

In the survey, participants were given an opportunity to upload or email a photo that they liked and one that they did not like. Out of the participants, 22 responses were recorded with photos. Of the respondents who submitted photos, all 22 submitted photos representing something they did like about the BeltLine, and 9 respondents submitted

photos representing something they did not like about the BeltLine. However, five participants provided comments about things they did not like about the Atlanta BeltLine that they felt they could not express with a photo. Table 2 below shows examples of the comments provided by the respondents regarding the likes and dislikes of the Atlanta BeltLine. Themes were found within the comments and if mentioned more than once, they were considered insightful. Respondents mentioned liking things like wide pathways, nature, and the art. Things respondents disliked were construction, lack of light, graffiti on the art, and fast bikers. The complete list of comments is provided in Appendix A.

Table 9 – Likes and Dislikes of the Atlanta BeltLine: Examples

Like	Dislike
The paths are wide enough to accommodate walkers, bikers, and other various modes of transport	I don't have a picture, but there are a lot of areas of the beltline that aren't well lit at night. More specifically the area between Krog St and the bridge over Ralph McGill Blvd.
I enjoy all the plantings particularly the flowers along the beltline. Not only are they pretty, but they are inspirational and give me new ideas of thing that may thrive in my yard and garden as well. The informational markers are interesting for us garden-geeks!	This may only be a temporary issue or one that is as yet unaddressed, but the (unofficial) entrance from Drewry Street is treacherous. We need to address the gaps and overlaps in responsibility as to connections and accessibility. I have managed to walk across the ditch full of rocks, but when my elderly mother visited and I wanted to show her the beltline, we could only look at it across the ditch. I thought to drive somewhere and park, but that kind of defeats the purpose. I hope it will be addressed soon. The beltline is such an asset to our city.
I love the rotating art at the Beltline	I love people to be able to bike at the Beltline but I think they will have to put restriction about the speed because it is dangerous for the pedestrian to walk safely. Also, I do not like graffiti on public art display.

In addition to explanations of the photos, each of the photos were processed with a color extracting tool. The tool used was from labs.tineye.com. This tool allows the user to

upload photos, then the photos are posturized and the color percentages are calculated. The color percentages are shown in Table 10, and an example of the outcome of the color extraction tool is shown below in Figure 10. These results were not considered significant because the images were contextually too similar. When liked photos and disliked photos were placed side by side, the content was too similar to distinguish between the categories. One could only tell the differences in the descriptions of the photos.

Extracted color palette

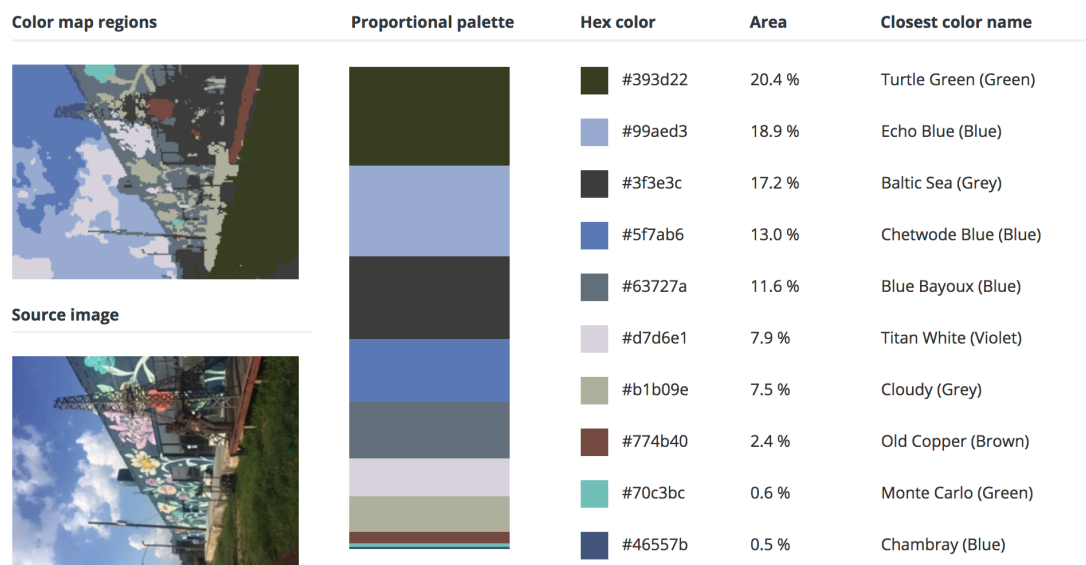


Figure 8 – Tin Eye Color Extraction Outcome

Table 10 - Photo Color Percentage Averages: Likes v.s Dislikes

Color	Likes	Dislikes
Red	2.60%	1.60%
Pink	1.25%	0.19%

Orange	0.11%	0%
Yellow	0.61%	0.09%
Green	10.70%	24.17%
Blue	18.74%	14.39%
Purple	4.04%	8.38%
White	0.86%	0.39%
Brown	14.76%	17.14%
Black	14.56%	2.77%
Grey	31.58%	30.71%

DISCUSSION

3.1 Findings

This research study set out to discover what design factors, both naturally occurring and man-made, encourage people not only to revisit, but have enough perceived safety to revisit the BeltLine. Largely, the data found lined up with expectations from previous research. The trail that has more visitors, better lighting, and wider, less-enclosed pathways tended to be the trail that participants perceived higher in safety. The participants reported enjoying the community and social aspect of the Atlanta BeltLine the most. The primary expected finding that was not met was the color similarities in the liked and disliked photos. Though the context of these photos provided insight, the photos of the likes and dislikes contained the same scenes. Therefore, the colors did not provide any added value. The color values were calculated and noted in the appendix but were not usable because the likes and dislikes themselves were in the comments rather than the photos.

As for the research question, “what design factors encourage people to revisit the Atlanta BeltLine?”, the following proved to be positive design and environmental factors and potential improvements to the trail:

- Wide trails with markers for bikers and pedestrians
- Defined pathways from permanent materials such as concrete
- Interest pieces such as art installations and scenic views
- Activities accessible from the trail such as parks, retail spaces, and restaurants

- Adequate lighting

Based on the qualitative feedback, respondents appreciated the wide trails and that bikers as well as pedestrians can share the trail. However, respondents also expressed the need for designated spaces for bikers and pedestrians. Accident witness and bikers riding “too fast” were indicators of this. Art installations and activities were another positive aspect about the BeltLine that was mentioned several times in the qualitative data. Lastly, a natural environment and activities to participate with friends were desired elements from the qualitative data. The first ranked reason for visiting the Atlanta BeltLine was to visit with friends, so this also supports this conclusion.

For perceived safety, wide pathways, trail material, and more lighting are controllable aspects of a trail to help visitors feel as safe as possible. These are aspects that are found in the completed trail which was proven to be significantly perceived to be safer than the interim trail.

3.1.0 *Differences in trail usage*

As expected, more respondents reported visiting the completed trail more than the interim. There are many factors that come into play. The interim trail has smaller, gravel pathways while the completed trail has wide concrete pathways. Several photos were submitted with the explanation that the wide concrete pathways were one of the “likes” about the trail. In addition, the literature review showed that there is a better chance of perceived safety when an area is not enclosed and there is easy escape. The completed trail being wider and less enclosed likely gives the visitors a more comfortable feeling.

Secondly, the natural light of the completed trail was measured to be brighter than the interim trail's. Because of the visiting patterns of the respondents tended to be later in the day, one can assume that the darker trail would deter visitors when the more populated, brighter completed trail was near. As Anke Blöbaum and Marcel Hunecke also found in their 2005 survey, visitors users prefer more lit public spaces.

Lastly, the number one reported activity to do on the BeltLine was visiting with friends. From the literature, it was discovered that one of the preferred methods of surveillance is the "safety in numbers" mentality. In the photo comments, one respondent covers this topic: "Safe place to go and play with my grandchildren. A place for artist to express themselves. Stops to eat and rest along the way." Others mention the activities done along the BeltLine. This implies that it's not the trail itself that draws the visitors. The collection of retail along the trail, local art displays, exercising opportunities, and connection with nature all come together to draw different people in for different reasons. This means that visitors of the trail can feel confident that the trail will be somewhat populated virtually all of the time in an urban area like Atlanta. Because the interim trail has many of the same attributes, visitors will choose the trail with the "safety in numbers" mentality.

3.1.1 Perceived safety

As touched on in the previous section. Respondents seemingly have more perceived safety on the completed trail than the interim trail when using popularity as a measure. Because 49 males and 48 females completed the survey, comparisons between the populations were appropriate. The total number of males and females does not equal the

total number of respondents, however, because all questions were optional to the respondent and he or she could skip any question. Thus, some respondents chose to keep their gender anonymous.

In the male/female analysis for the perceived safety questions, men tended to rate a higher perceived safety in comparison to women. This was expected due to literature review. However, women did not report feeling unsafe where men felt safe. The count of men's answers tended to be more consolidated on more extreme sides of the scales while the women's tended to be more spread. For example, on a question where men were more likely to answer "strongly agree" where women were more likely to answer "somewhat agree" to that question. In the literature, one of Heek's finding was that women preferred surveillance over privacy. This taking his finding and looking at the results of this study, it is possible that the cautiousness of women is higher than men when it comes to their surroundings while in public.

Interestingly and unexpectedly, lighting of the images in the survey did not seem to correlate with the willingness to walk along the trails unaccompanied. While both images ranked low on the "this place is well lit" section, the completed trail scored higher than the interim trail on the "I would walk this place unaccompanied." Although some respondents have not visited any Atlanta BeltLine trails, one may assume that many respondents answered these questions from recognition of the area. Using this assumption, this gives more evidence that respondents have a high level of perceived safety on the completed trail.

3.1.2 Photo Analysis

As mentioned before, the color analysis did not prove insightful, but valuable findings arose from the photos. Instead of taking zoomed in pictures of something specific, respondents sent wide contextualized photos. This means that the photos were too similar to draw conclusions apart from the comments provided to accompany them. Originally, it was thought that art would overwhelmingly be photographed during the study and therefore provide more colors that occur less in nature: pinks, purples, yellows, oranges, and reds. Additionally, many photos included people. People tended to have on brighter colored clothing. Because much of the photo feedback was about functional aspects of the Atlanta BeltLine, the images produced similar color percentages, however these color results also came to be due to the art pieces and murals on the BeltLine at the time of the survey. Many pieces had “rustic” appeal with more neutral tones. Therefore, greys, browns, blues, greens, and blacks dominated the photos, whether they were general photos of the beltline or of specific art pieces. Additionally, and unexpectedly, instead of zooming in on something specific (i.e. an art piece or mural), the participants chose to keep the context in the photos.

One takeaway from these results can be derived is that some respondents see the Atlanta BeltLine as a way to be inadvertently close to nature as most positive photos were taken of experiences with friends and of art pieces incorporated into the landscape. Spending time with friends and looking at art pieces can be done anywhere. It’s the natural environment that enhances the experience. This supports Lorimer’s work in that people visit trails like the Atlanta BeltLine to be closer to nature in an urban environment.

From the open-ended comments after submitting photos, it was evident that respondents found value in: the wide trails for bikers and walkers to share, the local art, flowers/ plants along the trail, the restoration of old buildings, and the sense of community that the BeltLine brings to Atlanta. On the other hand, respondents disliked: constant construction around the trail, the crowds of people sharing the same space, the difficulty of bikers and walkers using the same path, general gentrification of the area, lack of scenic views, and inadequate lighting later in the evening. These findings line up with what was expected except that getting out into nature was not a primary focus for most visitors as would have been expected based on Lorimer work on brownfields transformed to bring nature into urban environments (2008), it was just an added bonus.

Interestingly, many of the dislikes about the Atlanta BeltLine go hand in hand with the popularity of the trail. This presents the demand for more trails like the Atlanta BeltLine to disperse the surplus of visitors. In Atlanta's case, the BeltLine is still not completed and in years to come, there will be many more completed trails to visit.

3.2 Research limitations

As with all studies, this research has limitations that should be considered when using the results in a wider context. As explained below, demographic results were skewed significantly toward Caucasian people. This could mean that the opinions captured in the survey do not align with the unique perspectives of those in other races. This is a concern because this study specifically focuses on urban areas- areas with diverse populations. Also noted below is the lighting measurements used in this study. The clouds from the day could

have skewed the data to show that certain areas of the trail darker than they would have if the clouds had passed over.

3.2.0 *Environmental results*

These measurements were taken as an average. Light measurements vary from day to day due to weather and time of year. Although the weather was mostly clear, some of the light measurements may have been impacted by passing clouds. Additionally, some of the measurements fell under bridges going over the trails. Some underpasses may have been missed due to the frequency of measurement.

3.2.1 *Survey results*

Because the survey respondents were self-selected, the entire population was likely not represented in the sample. Those without a camera or other technology may have chosen to exclude themselves from the study. Additionally, some respondents may have not felt themselves technologically savvy enough to participate in the survey. People on bikes, running by, or just missed the flyers were not aware of the study, and many potential participants were too busy to stop and participate.

The survey results overwhelmingly consisted of responses from people who identify as Caucasian, 92%. Though from casual observation, a large portion of the total population who use the trail seem to be white, it is unlikely that the self-selected respondents accurately represent the racial demographics of Atlanta BeltLine users and a more diverse population would have been desired for the study.

CHAPTER 4. CONCLUSION

With the threat of technology and virtual relationships looming, this study emphasizes that public spaces are a central value to our urban centers. Urban dwellers still value the benefits that public spaces allow such as socializing with friends, exercise, and the feeling of being in nature.

4.1 Summary

This study explored the revitalization of lost spaces into public trails by using the Atlanta BeltLine as a case study. Over 100 people in the Atlanta area participated in the survey. The survey asked general questions about their experiences of the Atlanta BeltLine as well as perceived safety questions. Additionally, respondents had the option to submit photos of things they like and dislike about the Atlanta BeltLine. For the purpose of this study, data was only gathered regarding the Atlanta BeltLine East completed trail and the Atlanta BeltLine East interim trail. These trails provided the similarity of location and available population as well as many differences regarding path type and width, activities accessible, and other environmental measures. Environmental measurements were taken to help interpret the results of the survey. These measurements included sunlight measures, path type, and path width.

The results of the study showed that most respondents had only visited the completed trail. This is due to a large number of factors, many to be perceived safety related. The study results showed that wide, permanent pathway material such as concrete,

adequate lighting, opportunity for social outings (activities such as parks, retail space, or restaurants), interest pieces such as art installations or scenic views, and natural elements such as flowers and grass all play a part in providing the perceived safety needed for a person to revisit a space that was previously lost or abandoned.

4.2 Interpretation

The last question of the survey asked if the participants were likely to revisit the Atlanta BeltLine in the next 3 months, and 90% of participants responded probably or definitely yes. As it relates to revitalized lost spaces, this shows that not only can lost spaces be lucrative, but they can thrive. In the case of the completed east trail of the Atlanta BeltLine, some could argue that the trail is becoming too popular and populated- a good sign for the upcoming sections of the Atlanta BeltLine. The following is a list of best practices for the development of urban public trails created from lost spaces:

- Wide trails with markers for bikers and pedestrians
- Defined pathways from permanent materials such as concrete
- Interest pieces such as art installations or scenic views
- Activities accessible from the trail such as parks, retail spaces, and restaurants
- Adequate lighting

In order to change a lost space into a successful trail, planners must take the above into consideration. Although many of these seem to be “nice to haves,” details are what make the user’s experience memorable. All of these elements work together to provide perceived safety to the visitors. The more people feel safe in a space and enjoy it, the more people

will visit this space. Therefore, the “safety in numbers” surveillance keeps the safe perception going. This “safe feeling” applies to all public spaces but is even more important to revitalized lost spaces because lost spaces have the opposite feeling for many.

The “special sauce” to the iconic Atlanta BeltLine has all of these components, but the components themselves aren’t want make the BeltLine so valuable. These components allow the users a safe space to experience the city of Atlanta. This trail combines the necessary elements for perceived safety in parallel with elements that represent of Atlanta’s unique culture. From the local art to the mom and pop restaurants along the trail, the BeltLine provides the local flavor that visitors can only typically get by wandering the unknown and possibly perceived dangerous streets of Atlanta.

4.3 Future research recommendations

There are several opportunities to dive deeper into the research about revitalizing lost spaces into public trails. Although the survey provided a rich baseline understanding of how people use and feel about the Atlanta BeltLine, the next iteration of the study would involve individual interviews. As discovered with the open-ended questions about the photos, qualitative data allows rich insights that numbers do not always capture. With interviews, some quantitative data can be captured as well as very rich qualitative data. In addition, the lighting data would be taken multiple times rather than one day to avoid any cloud interference. More social networks would be tapped into to get a wider range of demographics. Adding a question about why participants choose not to visit the Atlanta BeltLine would add another layer of understanding the perception of the trail. Additionally,

it would be interesting to compare completed trails with other completed trails and interim trails with other interim trails. This could bring out more defined best practices for the public space industry.

This area of study could impact research on community and individual levels. How might a popular public trail impact a community's closeness or communication? How might frequent use of the Atlanta BeltLine impact the health of residents of Atlanta? Additionally, this area of study could aid in research about urban planning, especially understanding the BeltLine from a transportation point of view.

In today's busy and stressful urban environments, it's more important than ever to provide people with spaces that build community. The Atlanta BeltLine has shown to be a vehicle for Atlanta residents to get outside, move around, and visit with others. This study has pointed out a few key elements for similar projects hoping to accomplish the same thing. By taking an old, abandoned railroad track, the Atlanta BeltLine Project has provided the city with more than just a trail, it has provided the city of Atlanta with a new-found energy. It's now, as their slogan says, "Where Atlanta comes together."

APPENDIX A. SURVEY

C Thank you for participating in the Atlanta BeltLine Thesis Survey! This survey will take about 5 minutes to complete. Your opinions and experiences are very important to the survey. All of your answers will be anonymous, and any identifiable information provided will be de-identified by the researcher. If you have any questions, please email beltline.thesis@gmail.com. Again, thank you for participating!

☐ I have read and agree to the terms above (1)

Q1 Do you have pictures of the Atlanta BeltLine that you would like to share?

☐ Yes (1)

☐ No (2)

Condition: No Is Selected. Skip To: How often did you visit the Atlanta B....

Q2 Please upload a picture that represents what you like about the Atlanta BeltLine

Q3 Please describe what you like about this picture.

Q4 Please upload a picture that represents what you dislike about the Atlanta BeltLine

Q5 Please describe what you dislike about this picture

Q6 How often did you visit the Atlanta BeltLine in the last 3 months?

- ☐ Less than once a month (1)
- ☐ Once every few weeks (2)
- ☐ Once a week (3)
- ☐ More than once a week (4)
- ☐ I did not visit the Atlanta BeltLine (5)

Condition: I did not visit the Atlanta... Is Selected. Skip To: Click to write the question text.

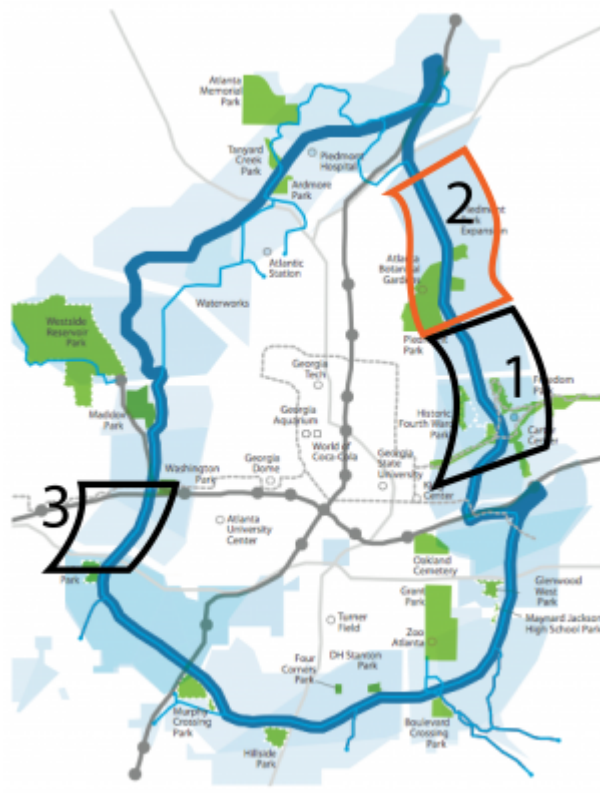
Q7 Why have you visited the Atlanta BeltLine in the last 3 months? (select all that apply)

- ☐ Exercise (1)
- ☐ Visiting with Friends (2)
- ☐ Commuting/ Running Errands (3)
- ☐ Sightseeing (4)

Q8 What time(s) of day have you visited the Atlanta BeltLine in the past 3 months? (select all that apply)

- ☐ Before 7:00 am (1)
- ☐ 7:00 am - 10:30 am (2)
- ☐ 10:30 am - 2:00 pm (3)
- ☐ 2:00 pm - 6:00 pm (4)
- ☐ 6:00 pm - 8:00 pm (5)
- ☐ After 8:00 pm (6)

Q9



Q10 Using the map above, what areas of the Atlanta BeltLine have you visited? (select all that apply)

- ☐ 1 - East Side Completed Trail (Ponce City Market, BeltLine Kroger) (1)
- ☐ 2 - East Side Interim Hiking Trail (runs beside Piedmont Park) (2)
- ☐ 3 - West End Completed Trail (Westview Cemetery, White Park, Westview neighborhoods) (3)

Q11 Use this image to answer the following questions.



Q12 I would walk along this place unaccompanied.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q13 I have an uneasy feeling about this place.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q14 From this place, you have a good overview.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q15 This place is well lit.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q16 In the case of danger, one can escape easily from this place.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q17 Use this image to answer the following questions.



Q18 I would walk along this place unaccompanied.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q19 I have an uneasy feeling about this place.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q20 From this place, you have a good overview.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q21 This place is well lit.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q22 In the case of danger, one can escape easily from this place.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

Q23 What year were you born?

Q24 What is your gender?

- ☐ Female (1)
- ☐ Male (2)

Q25 What is your race? (select all that apply)

- ☐ American Indian or Alaska Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Native Hawaiian or Pacific Islander (4)
- ☐ White (5)
- ☐ Other, please specify (6) _____

Q26 Do you plan on visiting the Atlanta BeltLine in the next 3 months?

- ☐ Definitely yes (1)
- ☐ Probably yes (2)
- ☐ Probably not (3)
- ☐ Definitely not (4)

APPENDIX B. SURVEY RESULTS

B.1 How did you find this survey?

Answer	Percentage of Respondents Answer
Flyer on the Beltline	3.91%
Social Media	73.44%
Word of Mouth	22.66%

B.2 Like and Dislike Results

B.2.1 Like and Dislike Comments

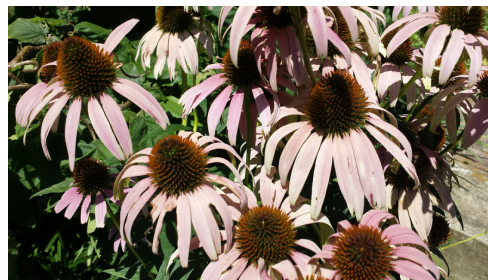
Like	Dislike
Expression, creativity, provoking, beautiful	
The paths are wide enough to accommodate walkers, bikers, and other various modes of transport	I don't have a picture, but there are a lot of areas of the beltline that aren't well lit at night. More specifically the area between Krog St and the bridge over Ralph McGill Blvd.
This is just off of it, but the murals and the stickers and the different stuff to look at.	
I enjoy all the plantings particularly the flowers along the beltline. Not only are they pretty, but they are inspirational and give me new ideas of thing that may thrive in my yard and garden as well. The informational markers are interesting for us garden-geeks!	This may only be a temporary issue or one that is as yet unaddressed, but the (unofficial) entrance from Drewry Street is treacherous. We need to address the gaps and overlaps in responsibility as to connections and accessibility. I have managed to walk across the ditch full of rocks, but when my elderly mother visited and I wanted to show her the beltline, we could only look at it across the ditch. I thought to drive somewhere and park, but that kind of defeats

	the purpose. I hope it will be addressed soon. The beltline is such an asset to our city.
I really like the newly mulched sides of the trail. I often use the beltline to run and find the concrete surface hard. Mulching the sides brings the trails to more of a dirt and concrete hybrid. The positives of the mulched sections provides a partial solution to my dislike below.	Above is a photo of the concrete with a runner and a biker. The concrete has no markers about safety or anything dedicated to bikers and runners. I walk to work every day and have noticed several collisions on the between bikers, walkers and people with dogs. Even having a line in the middle to keep walkers from taking the whole path would be a drastic improvement.
My favorite thing about the beltline is the artwork and art installations.	My least favorite is the construction zones that always seem to be hanging around!
Building restoration and urban renewal is what I like about this photo--and the BeltLine!	The BeltLine should be about people and their health; on a hot Atlanta day, there should be access to FREE water and a renewed emphasis on NOT having waste from plastic water bottles. Also, people will bring their pets--although I'm not a fan--and providing water via a 'doggie' fountain would be beneficial!
Safe place to go and play with my grandchildren. A place for artist to express themselves. Stops to eat and rest along the way. Always a surprise to experience. Those are just a few positive mentions.	The negative, why is it so short???? Why is it taking so long to be 21 miles long or longer?
I love the rotating art at the Beltline	I love people to be able to bike at the Beltline but I think they will have to put restriction about the speed because it is dangerous for the pedestrian to walk safely. Also, I do not like graffiti on public art display.
this is an older picture, from when I lived on the Beltline, in 2013. Back then it was less popular/populated, and it felt more like exploring secret places than being a tourist.	I don't have one. I don't visit as often partly because I don't live close by anymore, but a big part is because there are always so dang many people there! It doesn't feel as "cool" now.
well it's a crap picture - but the lantern parade is indicative of the way that the beltline has created a new main street for Atlanta	pick any overhead shot - gentrification + ridiculous development that essentially builds parking decks every bit as large as new construction
Love the mural!	The lack of lighting at night.
Great Views	Sometimes not so great views, and the Beltline does run through inconvenient places (in my opinion)
It's beautiful art that can be interactive (sit on, climb on) and works well with its environment.	Displacement, removing businesses that serve a diverse population to be replaced with fancy

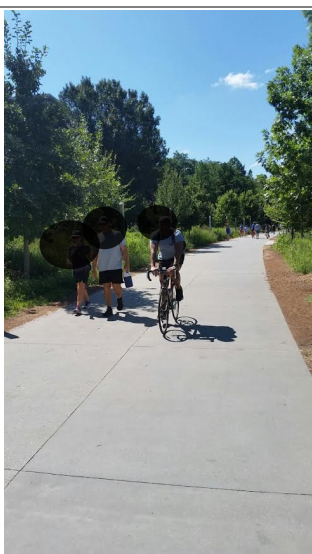
	expensive businesses (I know Kroger is coming back but this represents my point).
Likes dog walking	dislikes powerlines
In the first pic, I like the buildings that are being upgraded and put back into use!!!	In this second pic, I don't like that there are no free/public water fountains for people and their pets. At least there should be a 'plastic bottle-free zone' along this 'belt line' to encourage drinking from a public fountain

B.2.2 Please upload a picture that represents what you like about the Atlanta Beltline.









B.2.3 Please upload a picture that represents what you dislike about the Atlanta BeltLine.









B.2.4 How often did you visit the Atlanta BeltLine in the last 3 months?

Frequency	Percentage of Respondents Answer	Number of Responses
Less than once a month	21.19%	25
Once every few weeks	33.05%	39
Once a week	6.78%	8
More than once a week	26.27%	31
I did not visit the Atlanta BeltLine	12.71%	15

B.2.5 Why have you visited the Atlanta BeltLine in the last 3 months? (select all that apply)

Reason	Percentage of Respondents Answer	Number of Responses
Exercise	29.72%	63
Visiting with Friends	31.60%	67
Commuting/ Running Errands	19.81%	42

Sightseeing	18.87%	40
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*B.2.6 What time(s) of day have you visited the Atlanta BeltLine in the last 3 months?
(select all that apply)*

Time Frame	Percentage of Respondents Answer	Number of Responses
Before 7:00 am	5.16%	11
7:00 am – 10:30 am	16.43%	35
10:30 am – 2:00 pm	21.13%	45
2:00 pm – 6:00 pm	28.17%	60
6:00 pm – 8:00 pm	29.11%	62

B.2.7 What days of the week do you typically visit the Atlanta BeltLine? (select all that apply)

Day	Percentage of Respondents Answer	Number of Responses
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Sunday	20.25%	65
Monday	8.72%	28
Tuesday	10.28%	33
Wednesday	9.66%	31
Thursday	10.59%	34
Friday	16.51%	53
Saturday	23.99%	77

B.2.8 Using the map above, what areas of the Atlanta BeltLine have you visited? (select all that apply)

Leg of BeltLine	Percentage of Respondents Answer	Number of Responses
East Side Completed Trail	60.93%	92
East Side Interim Hiking Trail	34.44%	52
West End Completed Trail	4.64%	7

B.2.9 I would walk along this place unaccompanied. (Interim Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	16.04%	17
Agree	29.25%	31
Somewhat Agree	30.19%	32
Neither Agree nor Disagree	2.83%	3
Somewhat Disagree	12.26%	13
Disagree	3.77%	4
Strongly Disagree	5.66%	6

B.2.10 I have an uneasy feeling about this place. (Interim Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	2.83%	3
Agree	13.21%	14

Somewhat Agree	30.19%	32
Neither Agree nor Disagree	14.15%	15
Somewhat Disagree	11.32%	12
Disagree	18.87%	20
Strongly Disagree	9.43%	10

B.2.11 From this place, you have a good overview. (Interim Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	3.03%	3
Agree	16.16%	16
Somewhat Agree	11.11%	11
Neither Agree nor Disagree	29.29%	29
Somewhat Disagree	11.11%	11
Disagree	20.20%	20
Strongly Disagree	9.09%	9

B.2.12 This place is well lit. (Interim Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	2.91%	3
Agree	8.74%	9
Somewhat Agree	7.77%	8
Neither Agree nor Disagree	23.30%	24
Somewhat Disagree	12.62%	13
Disagree	32.04%	33
Strongly Disagree	12.62%	13

B.2.13 In case of danger, I can escape easily from this place. (Interim Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	5.88%	6

Agree	12.75%	13
Somewhat Agree	15.69%	16
Neither Agree nor Disagree	17.65%	18
Somewhat Disagree	24.51%	25
Disagree	15.69%	16
Strongly Disagree	7.84%	8

B.2.14 I would walk this place unaccompanied. (East Completed Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	34.02%	33
Agree	35.05%	34
Somewhat Agree	18.56%	18
Neither Agree nor Disagree	2.06%	2
Somewhat Disagree	2.06%	2
Disagree	4.12%	4

Strongly Disagree	4.12%	4
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B.2.15 I have an uneasy feeling about this place. (East Completed Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	5.15%	5
Agree	4.12%	4
Somewhat Agree	17.53%	17
Neither Agree nor Disagree	13.40%	13
Somewhat Disagree	16.49%	16
Disagree	23.71%	23
Strongly Disagree	19.59%	19

B.2.16 From this place, you have a good overview. (East Completed Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	4.30%	4
Agree	41.94%	39
Somewhat Agree	15.05%	14
Neither Agree nor Disagree	20.43%	19
Somewhat Disagree	10.75%	10
Disagree	5.38%	5
Strongly Disagree	2.15%	2

B.2.17 This place is well lit. (East Completed Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	1.04%	1
Agree	11.46%	11
Somewhat Agree	11.46%	11

Neither Agree nor Disagree	16.67%	16
Somewhat Disagree	22.92%	22
Disagree	26.04%	25
Strongly Disagree	10.42%	10

B.2.18 In case of danger, one can escape easily from this place. (East Completed Trail Photo)

	Percentage of Respondents Answer	Number of Responses
Strongly Agree	9.57%	9
Agree	28.72%	27
Somewhat Agree	23.40%	22
Neither Agree nor Disagree	12.77%	12
Somewhat Disagree	14.89%	14
Disagree	8.51%	8
Strongly Disagree	2.13%	2

B.2.19 What is your gender?

	Percentage of Respondents Answer	Number of Responses
Female	49.48%	48
Male	50.52%	49

B.2.20 What is your race? (select all that apply)

	Percentage of Respondents Answer	Number of Responses
American Indian or Alaska Native	1.00%	1
Asian	3.00%	3
Black or African American	1.00%	1
Native Hawaiian or Pacific Islander	0.00%	0
White	92.00%	92
Other	3.00%	3

B.2.21 Do you plan on visiting the Atlanta BeltLine in the next 3 months?

	Percentage of Respondents Answer	Number of Responses
Definitely yes	71.13%	69
Probably yes	21.65%	21
Probably not	7.22%	7
Definitely not	0.00%	0

APPENDIX C. PHOTO ANALYSIS

LIKED PHOTOS VS. DISLIKED PHOTOS IN COLOR PERCENTAGES

Color	Likes	Dislikes
Red	2.60%	1.60%
Pink	1.25%	0.19%
Orange	0.11%	0%
Yellow	0.61%	0.09%
Green	10.70%	24.17%

Blue	18.74%	14.39%
Purple	4.04%	8.38%
White	0.86%	0.39%
Brown	14.76%	17.14%
Black	14.56%	2.77%
Grey	31.58%	30.71%

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